

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
28 April 2005 (28.04.2005)

PCT

(10) International Publication Number
WO 2005/037827 A1

(51) International Patent Classification⁷: C07D 409/04 (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number: PCT/US2004/033585

(22) International Filing Date: 12 October 2004 (12.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/511,991 16 October 2003 (16.10.2003) US

(71) Applicant (for all designated States except US): SMITHKLINE BEECHAM CORPORATION [US/US]; One Franklin Plaza, PO Box 7929, Philadelphia, PA 19101 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): CHEUNG, Mui [CN/US]; GlaxoSmithKline, Five Moore Drive, PO Box 13398, Research Triangle Park, North Carolina 27709 (US). EMMITTE, Kyle, Allen [US/US]; GlaxoSmithKline, Five Moore Drive, PO Box 13398, Research Triangle Park, North Carolina 27709 (US).

(74) Agents: LEVY, David, J et al.; GlaxoSmithKline, Five Moore Drive, PO Box 13398, Research Triangle Park, North Carolina 27709 (US).

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/037827 A1

(54) Title: PROCESS FOR PREPARING BENZIMIDAZOLE THIOPHENES

(57) Abstract: The present invention provides a process for preparing benzimidazole thiophene compounds

6. The process according to claim 5, wherein said inert solvent is chloroform or a mixture of chloroform and acetic acid.

7. The process according to claim 1 further comprising the step of
5 converting the compound of formula (I) to a pharmaceutically acceptable salt, solvate or physiologically functional derivative thereof.

8. The process according to claim 1 further comprising the step of
converting the compound of formula (I) or a pharmaceutically acceptable salt,
10 solvate or physiologically functional derivative thereof to a different compound
of formula (I) or a pharmaceutically acceptable salt, solvate or physiologically
functional derivative thereof.